



Oscilent Corporation

PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF184.0M-25A	84.0 MHz IF SAW Filter 25.90 MHz Bandwidth

Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
- o Smith Chart
- o VSWR

Notes

- o Electrostatic Sensitive Device (ESD) 
- o Avoid excessive ultrasonic exposure
- o Solderability compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature
- o This product complies with EU directive 2002/95/EC (RoHS compliance)





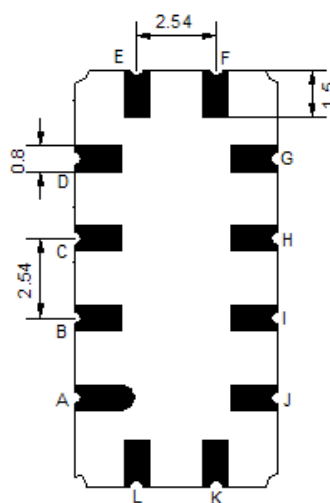
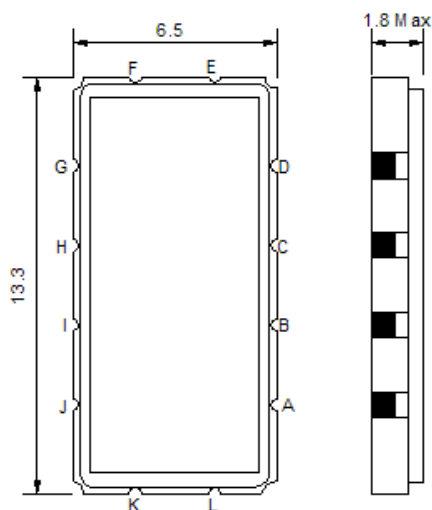
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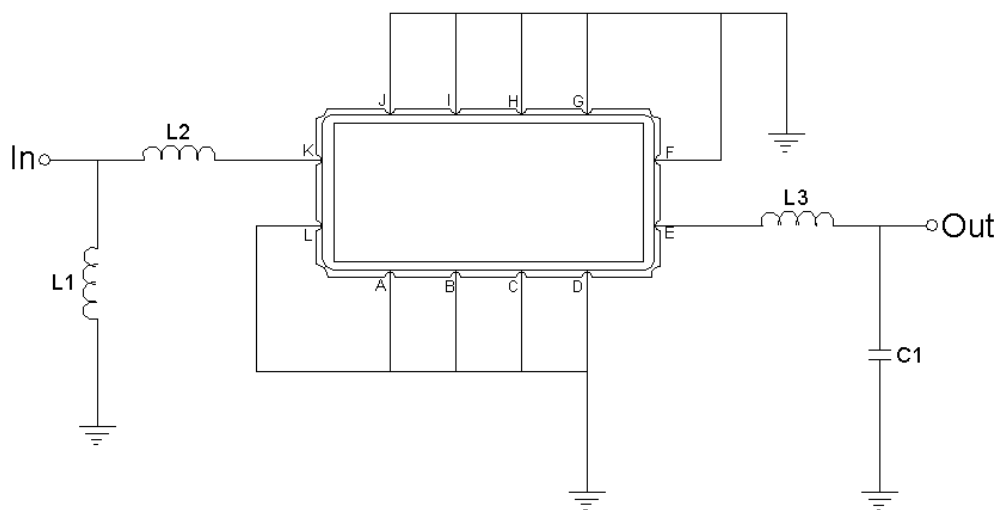
184.0 MHz IF SAW Filter 25.90 MHz Bandwidth

Mechanical Dimensions (mm)



Pin Description	
A, B, C, D, F, G, H, I, J, L	Ground
K	Input
E	Output

Test Circuit



Test Fixture & Values	
Input	L1 = 18 nH, L2 = 12 nH
Output	L3 = 47 nH, C1 = 33 pF
Source/Load Impedance	50 Ω

**Maximum Ratings**

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-5	-	60
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-

Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).

Those impedances could be modified with different impedance values and/or structures, if necessary.

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	184.00	-
Insertion Loss at Fo	dB	-	29.50	31.50
Group Delay Variation at Fo ± 12.50 MHz	nsec	-	18	50
Absolute Delay at Fo	usec	-	2.14	-
Passband Ripple Variation at Fo ± 12.50 MHz	dB	-	0.60	1.00
Bandwidth at -1dB	MHz	25.60	25.90	-
Bandwidth at -3dB	MHz	-	26.33	-
Bandwidth at -40dB	MHz	-	28.25	28.50
Ultimate Rejection	dB	48	53	-
Temperature Coefficient	ppm/°C	-	-20	-



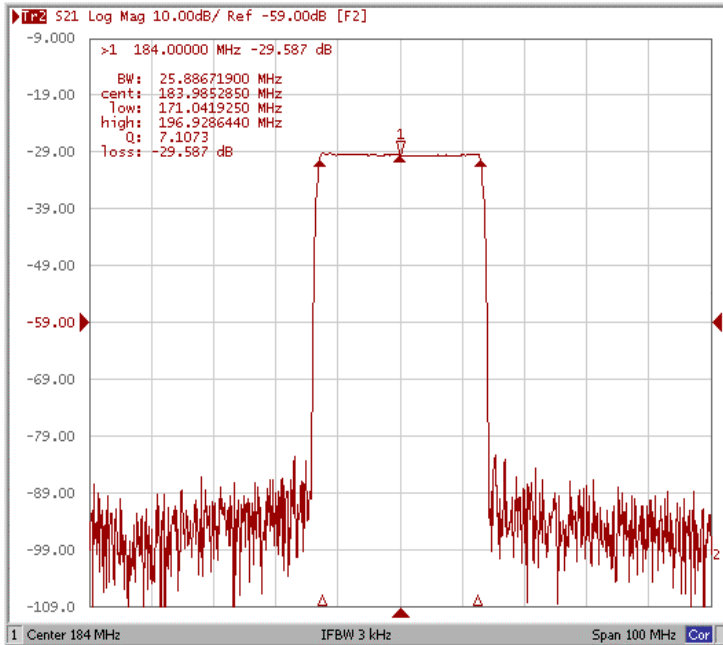
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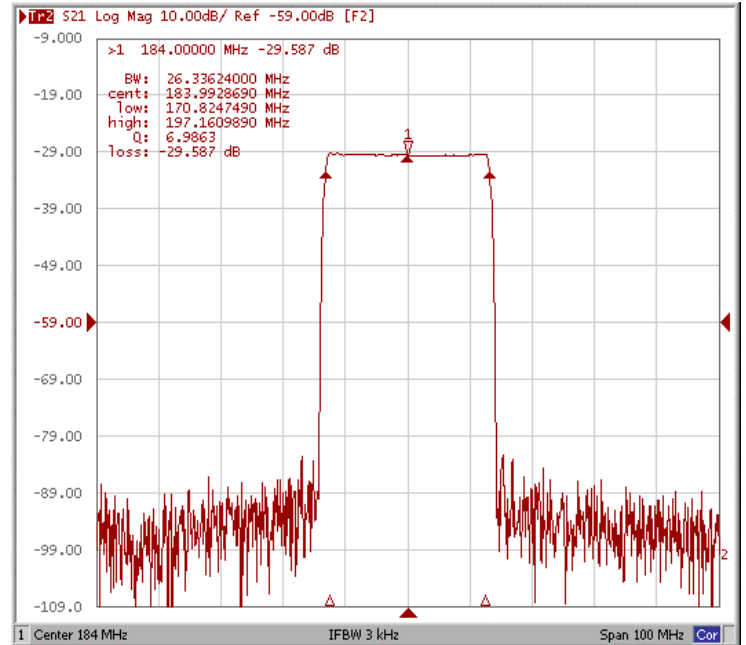
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Frequency Response (Room temperature 25°C)

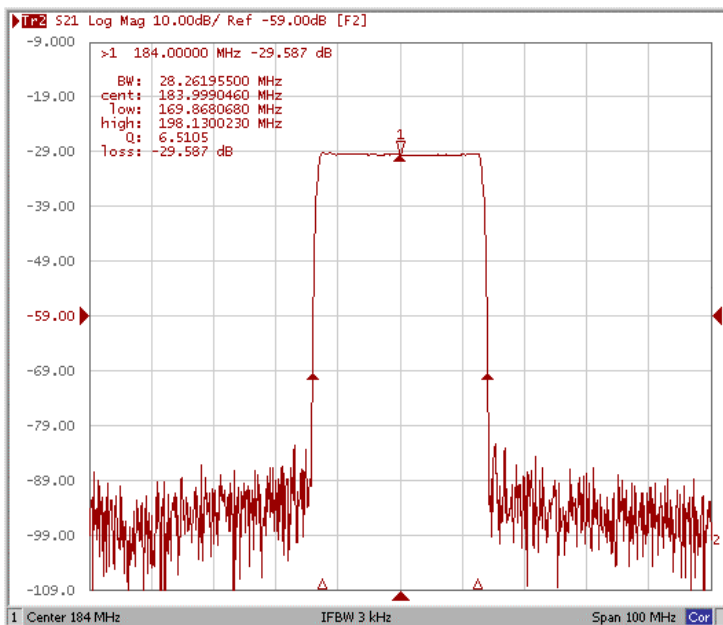
Bandwidth at -1.0 dB



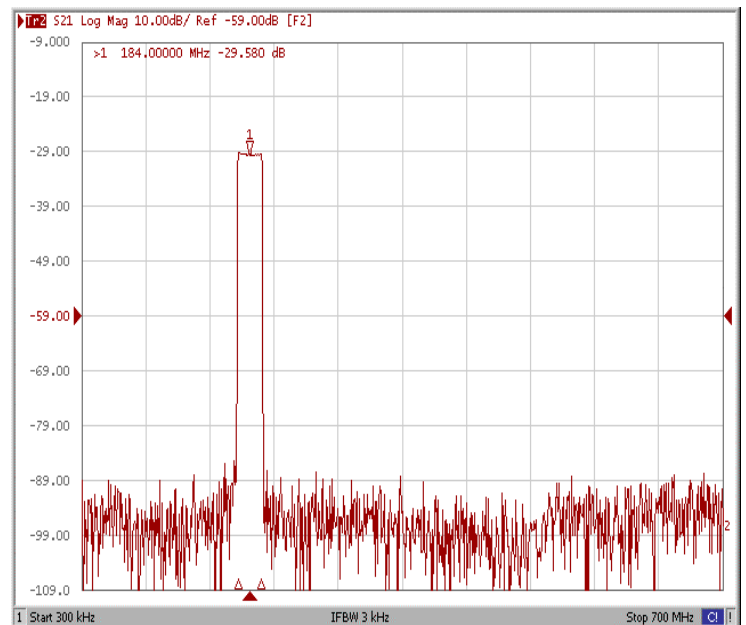
Bandwidth at -3.0 dB



Bandwidth at -40 dB



Wide-Band





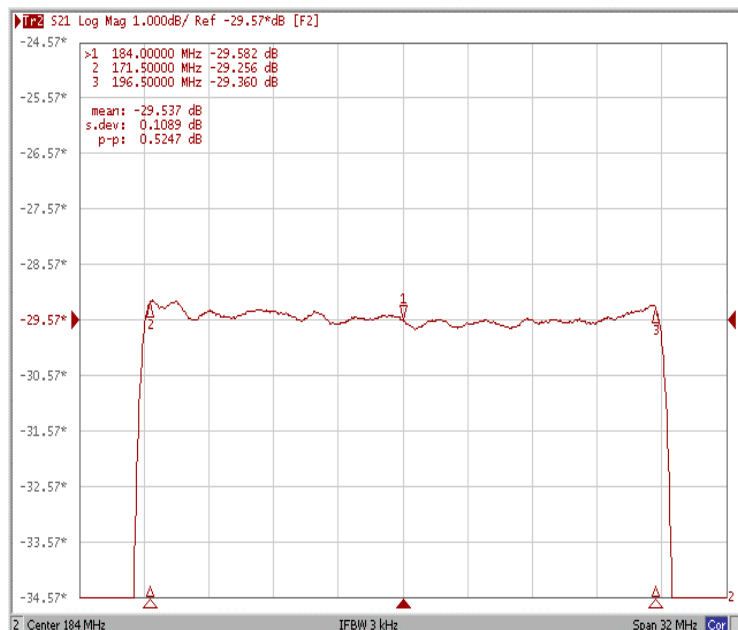
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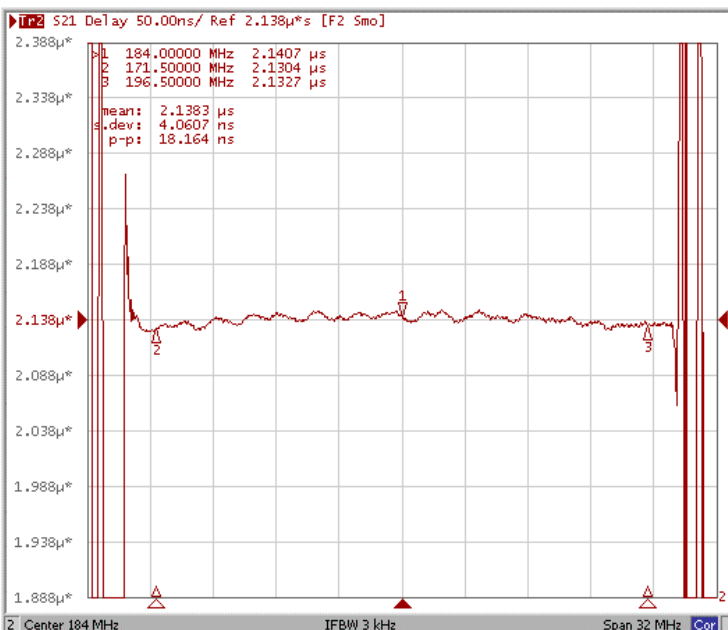
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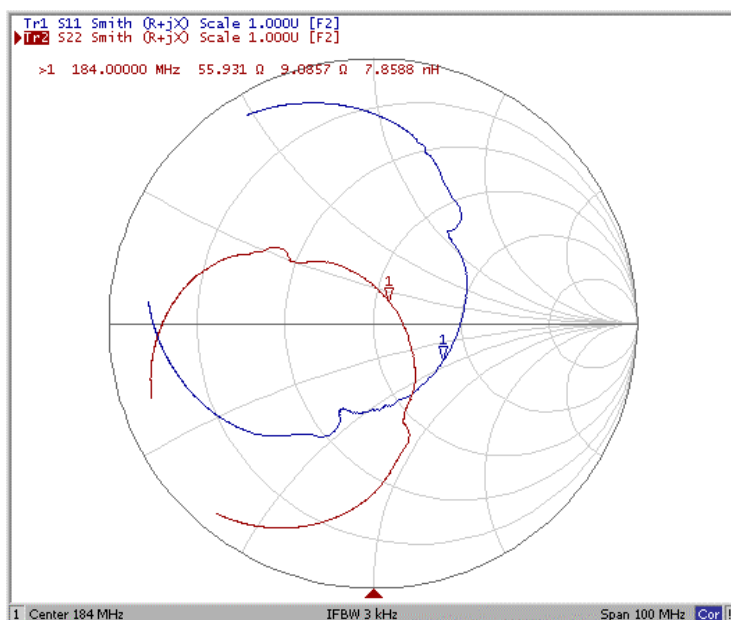
Ripple Variation $F_o \pm 12.50$ MHz



Group Delay Variation $F_o \pm 12.50$ MHz



Smith Chart





VSWR

